Procedures, Functions, and Loops in PL/SQL (Based on Online Food

Ordering System)

Case Study: Online Food Ordering System

Objective:

The objective of this task is to design, implement, and execute PL/SQL

procedures, functions, and loops to handle real-world business scenarios related to an

online food ordering system. This will help in automating transactions, improving

database efficiency, and enforcing business rules in a structured manner.

Step 1: Ensure the Necessary Tables Exist

Before running the procedures and functions, create the required tables in your Oracle

Database.

DROP TABLE OrderTable PURGE;

DROP TABLE Delivery PURGE;

DROP TABLE Menu\_Item PURGE;

CREATE TABLE OrderTable (

Order\_ID NUMBER PRIMARY KEY,

Cust\_ID NUMBER,

Order\_Date DATE,

Order\_Total NUMBER(10,2),

Payment\_Status VARCHAR2(20)

);

CREATE TABLE Delivery (

Order\_ID NUMBER PRIMARY KEY,

Delivery\_Status VARCHAR2(20),

FOREIGN KEY (Order\_ID) REFERENCES OrderTable(Order\_ID)

);

CREATE TABLE Menu\_Item (

Item\_ID NUMBER PRIMARY KEY,

Item\_Name VARCHAR2(100),

Price NUMBER(10,2)

);

INSERT INTO OrderTable VALUES (1, 101, TO\_DATE('2024-02-01', 'YYYY-MM-DD'),

250.50, 'Pending');

INSERT INTO OrderTable VALUES (2, 102, TO\_DATE('2024-02-02', 'YYYY-MM-DD'),

400.75, 'Paid');

INSERT INTO OrderTable VALUES (3, 103, TO\_DATE('2024-02-03', 'YYYY-MM-DD'),

150.00, 'Pending');

INSERT INTO Delivery VALUES (1, 'Pending');

INSERT INTO Delivery VALUES (2, 'Delivered');

INSERT INTO Delivery VALUES (3, 'Pending');

INSERT INTO Menu\_Item VALUES (1, 'Pizza', 500);

INSERT INTO Menu\_Item VALUES (2, 'Burger', 300);

INSERT INTO Menu\_Item VALUES (3, 'Pasta', 450);

1. Procedure to Update Payment Status

Step 1: Create a Procedure

Expected Output:

Step 2: Execution

Expected Output:

Query 2: Function to Calculate Total Revenue

Step 1: Create a Function

Expected Output:

Step 2: Execution

Query 3: Loop: Mark All Undelivered Orders as "Delayed"

Expected Output:

Query 4: Procedure to Get Order Details by Customer ID

Step 1: Create a Procedure

Expected Output:

Step 2: Execution

Expected Output:

Query 5: Procedure to Apply Discount on Menu Items

Step 1: Create a Procedure

Expected Output: